

ABSTRACT

A method for preparing transparent mesostructured inorganic/block-copolymer composites or inorganic porous solids containing optically responsive species with selective optical, optoelectronic, and sensing properties resulting therefrom. Mesoscopically organized inorganic/block copolymer composites doped with dyes or complexes are prepared for use as optical hosts, chemical/physical/biological sensors, photochromic materials, optical waveguides, tunable solid-state lasers, or optoelectronic devices. The materials can be processed into a variety of different shapes, such as films, fibers, monoliths, for novel optical and sensing applications.

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